

**REMARKS*****Summary of the Amendment***

Upon entry of the above amendment, claim 1 will have been amended and new claims 45 and 46 will have been presented for consideration by the Examiner. Accordingly, while claims 1 – 46 currently remain pending, the Examiner has withdrawn claims 23 – 44, directed to the non-elected invention, from further consideration, such that only claims 1 – 22, 45, and 46 are currently under consideration.

***Summary of the Official Action***

In the instant Office Action, the Examiner has made final the restriction requirement and withdrawn claims 23 – 44, directed to the non-elected invention, from further consideration. Moreover, the Examiner has objected to the drawings, rejected claims 15 and 19 based upon formal matters, and rejected claims 1 – 22 over the art of record. By the present amendment and remarks, Applicants submit that the objections and rejections have been overcome, and respectfully request reconsideration of the outstanding Office Action and allowance of the present application.

***Traversal of Objection to the Drawings***

Applicants traverse the Examiner's objection to the drawings for failing to include the features of claim 17.

Applicants submit that the feature recited in process claim 17, i.e., that includes that the lines of the fastening holes are curved, is apparent from the application text and drawings, which show that fastening holes can be located in order to provide a desired arrangement,

e.g., a straight arrangement and a zigzag arrangement are illustrated in the Figures.

Thus, Applicants submit that that no further illustration is necessary to facilitate the understanding of the one ordinarily skilled in the art how to use the process of the instant invention, and to do so would be cumulative without presenting any further understanding of the invention.

Accordingly, Applicants request that the Examiner reconsider and withdraw the objection to the drawings, and indicate that the original drawings are acceptable.

***Traversal of Formal Rejection Under 35 U.S.C. §112, Second Paragraph***

Applicants traverse the rejection of claims 15 and 19 under 35 U.S.C. §112, second paragraph, as being indefinite.

Applicants submit that claims 15 and 19 clearly and unambiguously recite the subject matter that the inventors regard as their invention. In this regard, the Examiner invited to review paragraph [0041], in which the recited features are disclosed.

Accordingly, Applicants submit that one ordinarily skilled in the art reviewing the instant disclosure and reviewing the associated drawings would readily understand the scope of the claims and the manner of making and using the instant invention.

Therefore, Applicants request that the Examiner reconsider and withdraw the formal rejection of claims 15 and 19 under 35 U.S.C. §112, second paragraph, and indicate that these claims are fully in compliance with the requirements of the statute.

***Traversal of Rejection Under 35 U.S.C. §102(b)***

1. *Over Aikawa*

Applicants traverse the rejection of claims 1, 2, 4, 11, 14 – 16, and 20 under 35 U.S.C. § 102(b) as being anticipated by AIKAWA (U.S. Patent No. 5,665,207). The Examiner asserts that AIKAWA shows a process for manufacturing screens that includes the features recited in the claims. Applicants traverse the Examiner's assertions.

Applicants note that the Examiner has identified prior art Figure 1 of AIKAWA as anticipating the invention, in which hex-head bolts 108 are used to connect the cutters 106 to the strainer 100. However, in contrast to the profile pieces of the instant invention, which are pressably inserted into fastening holes of screen plate, the hex-head bolts screwably mount the cutter on the strainer.

Accordingly, independent claim 1, as now amended, recites, *press inserting profiled pieces* into the fastening openings, wherein at least a portion of the profiled pieces are arranged to project beyond a screen surface. Applicants submit that AIKAWA fails to disclose at least the above-noted features of the invention.

In particular, as the fastening means of AIKAWA are disclosed as bolts, it is apparent that the manner of mounting the cutters is to screw the bolts into the strainer, and that there is no teaching or suggestion of press inserting profiled pieces as recited in at least independent claim 1. Moreover, AIKAWA fails to provide any disclosure of press inserting the bolts, such that this document fails to anticipate the instant invention.

Moreover, Applicants note that, as there is no disclosure of any portion of the hex-head being inserted into the fastening opening, Applicants submit that this document fails to even disclose inserting *profiled pieces* into fastening openings. Further, as the bolt head

contacts a surface of the cutter, Applicants further submit that the hex-head portion cannot even arguably be inserted into a fastening opening, such that the asserted anticipation is improper.

Therefore, Applicants submit that, as AIKAWA fails to disclose each and every recited feature of the instant invention, the Examiner has failed to establish an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. §102(b). Accordingly, Applicants request that the Examiner reconsider and withdraw the anticipation rejection under 35 U.S.C. §102(b).

Further, Applicant submits that claims 2, 4, 11, 14 – 16, and 20 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that AIKAWA fails to anticipate, *inter alia*, side surfaces of the profiled pieces are positioned essentially perpendicular to the screen surface, as recited in claim 2; the profiled pieces have a regular, polygon-shaped profile, as recited in claim 4; the fastening holes are circular with diameter that is smaller than a corner measurement of the profiled pieces, as recited in claim 11; the fastening holes are arranged in groups, and that the fastening holes of each group are arranged in a line, as recited in claim 14; edges of adjacent fastening holes in a group are spaced only a short distance from one another, as recited in claim 15; the lines of the fastening holes are straight, as recited in claim 16; further comprising mounting ridges onto the at least one screen plate, as recited in claim 20.

Accordingly, Applicants request that the Examiner reconsider and withdraw the

rejection of claims 1, 2, 11, 14 – 16, and 20 under 35 U.S.C. §102(b) and indicate that these claims are allowable.

2. Over Gero '212

Applicants traverse the rejection of claims 1 – 3 and 10 under 35 U.S.C. §102(b) as being anticipated by GERO et al. (U.S. Patent No. 5,041,212) [hereinafter “GERO ‘212”]. The Examiner asserts that GERO ‘212 shows all of the recited features of the claims. Applicants traverse the Examiner’s assertions.

In contrast to the instant invention, GERO ‘212 discloses an undulating screen with mounted turbulence bars. However, Applicants submit that GERO ‘212 fails to provide any teaching that the turbulence bars are profiled pieces, as recited in at least independent claim 1, nor is there any teaching of the recited screen plate having fastening openings into which the profiled pieces are press inserted, as recited in at least independent claim 1.

Because GERO ‘212 fails to show at least the above-noted features of the invention, Applicants submit that the Examiner has failed to establish an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. §102(b). Accordingly, Applicants request that the Examiner reconsider and withdraw this rejection.

Further, Applicant submits that claims 2, 3, and 10 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that GERO ‘212 fails to anticipate, *inter alia*, side surfaces of the profiled pieces are positioned essentially perpendicular to the screen surface, as recited in claim 2; the projection

of the profiled pieces beyond the screen surface is at least about 2 mm and no more than about 30 mm, as recited in claim 3; and the profiled pieces project beyond the screen plate at a height of between about 2 mm and about 15 mm, as recited in claim 10.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 1 – 3 and 10 under 35 U.S.C. §102(b) and indicate that these claims are allowable.

3. Over Gero '986

Applicants traverse the rejection of claims 1, 2, and 6 under 35 U.S.C. §102(b) as being anticipated by GERO et al. (U.S. Patent No. 5,023,986) [hereinafter “GERO ‘986”]. The Examiner asserts that GERO ‘986 shows all of the recited features of the claims. Applicants traverse the Examiner’s assertions.

In contrast to the instant invention, GERO ‘986, like GERO ‘212, discloses an undulating screen with mounted turbulence bars. However, Applicants submit that GERO ‘986 fails to provide any teaching that the turbulence bars are profiled pieces, as recited in at least independent claim 1, nor is there any teaching of the recited screen plate having fastening openings into which the profiled pieces are press inserted, as recited in at least independent claim 1.

Because GERO ‘986 fails to show at least the above-noted features of the invention, Applicants submit that the Examiner has failed to establish an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. §102(b). Accordingly, Applicants request that the Examiner reconsider and withdraw this rejection.

Further, Applicant submits that claims 2, and 6 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that GERO '986 fails to anticipate, *inter alia*, side surfaces of the profiled pieces are positioned essentially perpendicular to the screen surface, as recited in claim 2; and the profiled pieces are made of highly wear-resistant material, as recited in claim 6.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 1, 2, and 6 under 35 U.S.C. §102(b) and indicate that these claims are allowable.

4. Over Doelle

Applicants traverse the rejection of claims 1, 2, 11 – 13, and 16 under 35 U.S.C. §102(e) as being anticipated by DOELLE et al. (U.S. Patent No. 6,254,729) [hereinafter "DOELLE"]. The Examiner asserts that DOELLE shows all of the recited features of the claims. Applicants traverse the Examiner's assertions.

Applicants submit that that DOELLE is not directed to a process for producing screens for use in wet screening fibrous paper suspensions. Accordingly, Applicants submit that this document cannot anticipate the recited process.

Further, Applicants note that DOELLE fails to teach or suggest a screen plate having a number of sorting apertures and press inserting profiled pieces into fastening openings, as recited in at least independent claim 1.

Because DOELLE fails to show at least the above-noted features of the invention,

Applicants submit that the Examiner has failed to establish an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. §102(b). Accordingly, Applicants request that the Examiner reconsider and withdraw this rejection.

Further, Applicant submits that claims 2, 11 – 13, and 16 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that DOELLE 986 fails to anticipate, *inter alia*, side surfaces of the profiled pieces are positioned essentially perpendicular to the screen surface, as recited in claim 2; and the fastening holes are circular with diameter that is smaller than a corner measurement of the profiled pieces, as recited in claim 11; the inserting of the profiled pieces includes forced fitting the profiled pieces into the fastening holes, as recited in claim 12; the fastening holes are provided to go through the at least one screen plate and to have a larger cross section on a side of the at least one screen plate at which the profiled pieces are inserted than on an opposite side of the at least one screen plate, as recited in claim 13; and the lines of the fastening holes are straight, as recited in claim 16.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 1, 2, 11 – 13, and 16 under 35 U.S.C. §102(b) and indicate that these claims are allowable.

***Traversal of Rejection Under 35 U.S.C. §103(a)***

***1. Over Aikawa***

Applicants traverse the rejection of claims 3, 5, 6, 9, 10, 17 – 19, 21, and 22 under 35



U.S.C. §103(a) as being unpatentable over AIKAWA. The Examiner asserts that, while AIKAWA fails to teach or suggest the features related the exposed sides of the profiled pieces, it would have been obvious to modify AIKAWA to include such features. Applicants traverse the Examiner's assertions.

As discussed above, as AIKAWA fails to provide any disclosure that a portion of the hex-head is inserted into a fastening opening, Applicants submit that this document fails to disclose or even suggest inserting *profiled pieces* into fastening openings. Still further, Applicants submit that, as the bolt head contacts a surface of the cutter, the hex-head portion cannot even arguably be inserted into a fastening opening.

As a result, Applicants submit that AIKAWA cannot even arguably suggest the features recited in the dependent claims. Thus, Applicants submit that claims 3, 5, 6, 9, 10, 17 – 19, 21, and 22 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper modification of AIKAWA can teach or suggest, *inter alia*, the projection of the profiled pieces beyond the screen surface is at least about 2 mm and no more than about 30 mm, as recited in claim 3; the regular, polygon-shaped profiled piece is an octagon, as recited in claim 5; the profiled pieces are made of highly wear-resistant material, as recited in claim 6; a cross-sectional area of the profiled pieces is between about 50 mm<sup>2</sup> and about 200 mm<sup>2</sup>, as recited in claim 9; the profiled pieces project beyond the screen plate at a height of between about 2 mm and about 15 mm, as recited in claim 10; the lines of the fastening holes are curved, as recited in claim

17; the lines of the fastening holes have a zigzag shape, as recited in claim 18; the fastening holes are positioned separately on the at least one screen plate and are spaced out at a distance of at least about 50 mm, as recited in claim 19; the sorting apertures have a circular cross section with a diameter between about 1 mm and about 30 mm, as recited in claim 21; and the at least one screen plate is made from a high-strength metal alloy, as recited in claim 22.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 3, 5, 6, 9, 10, 17 – 19, 21, and 22 under 35 U.S.C. §103(a) and indicate that these claims are allowable.

2. Over Doelle

Applicants traverse the rejection of claims 3, 10, 16 – 19, 21, and 22 under 35 U.S.C. §103(a) as being unpatentable over DOELLE. The Examiner asserts that, while DOELLE fails to teach or suggest the features related the exposed sides of the profiled pieces, it would have been obvious to modify DOELLE to include such features. Applicants traverse the Examiner's assertions.

Applicants submit that, as DOELLE is not directed to a process for producing a screen, this document can not render unpatentable the combination of features recited in the pending claims. Moreover, Applicants submit that in contrast to the instant invention, DOELLE fails to teach or suggest a screen plate having a number of sorting apertures and press inserting profiled pieces into fastening openings, as recited in at least independent claim 1.

Because DOELLE fails to teach or suggest at least the above-noted features of the invention, Applicants submit that no proper modification can render unpatentable the combination of features recited in at least independent claim 1.

Therefore, Applicants submit that DOELLE cannot even arguably suggest the features recited in the dependent claims. Thus, Applicants submit that claims 3, 10, 16 – 18, 19, 21, and 22 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper modification of DOELLE can teach or suggest, *inter alia*, the projection of the profiled pieces beyond the screen surface is at least about 2 mm and no more than about 30 mm, as recited in claim 3; the profiled pieces project beyond the screen plate at a height of between about 2 mm and about 15 mm, as recited in claim 10; the lines of the fastening holes are straight, as recited in claim 16; the profiled pieces project beyond the screen plate at a height of between about 2 mm and about 15 mm, as recited in claim 10; the lines of the fastening holes are curved, as recited in claim 17; the lines of the fastening holes have a zigzag shape, as recited in claim 18; the fastening holes are positioned separately on the at least one screen plate and are spaced out at a distance of at least about 50 mm, as recited in claim 19; the sorting apertures have a circular cross section with a diameter between about 1 mm and about 30 mm, as recited in claim 21; and the at least one screen plate is made from a high-strength metal alloy, as recited in claim 22.

Accordingly, Applicants request that the Examiner reconsider and withdraw the

rejection of claims 3, 10, 16 – 19, 21, and 22 under 35 U.S.C. §103(a) and indicate that these claims are allowable.

3. Over Gero '212 or Gero '986

Applicants traverse the rejection of claims 21 and 22 under 35 U.S.C. §103(a) as being unpatentable over GERO '212 or GERO '986. The Examiner asserts that, while the GERO documents fail to teach or suggest the features related the apertures, it would have been obvious to modify the GERO documents to include such features. Applicants traverse the Examiner's assertions.

Applicants submit that as GERO '212 and GERO '986 disclose undulating screens with mounted turbulence bars, and fail to provide any teaching or suggestion of a screen plate having fastening openings into which profiled pieces are press inserted, as recited in at least independent claim 1, this document fails to render obvious the instant invention.

Further, Applicants note that neither GERO '212 nor GERO '986 can even arguably suggest the features recited in the dependent claims. Thus, Applicants submit that claims 21 and 22 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits that no proper modification of GERO '212 or GERO '986 teaches or suggests, *inter alia*, the sorting apertures have a circular cross section with a diameter between about 1 mm and about 30 mm, as recited in claim 21; and the at least one screen plate is made from a high-strength metal alloy, as recited in claim 22.

Accordingly, Applicants request that the Examiner reconsider and withdraw the

rejection of claims 21 and 22 under 35 U.S.C. §103(a) and indicate that these claims are allowable.

4. *Gero '986 in view of Massa*

Applicants traverse the rejection of claims 7 and 8 under 35 U.S.C. §103(a) as being unpatentable over GERO '986 in view of MASSA et al. (U.S. Patent No. 5,789,686) [hereinafter "MASSA"]. The Examiner asserts that, while GERO '986 fails to teach or suggest the features related the profiled pieces, MASSA discloses such features, and that it would have been obvious to modify GERO '986 to include such features. Applicants traverse the Examiner's assertions.

As discussed above, GERO '986 fails to teach or suggest a screen plate having fastening openings into which profiled pieces are press inserted, as recited in at least independent claim 1. Thus, Applicants submit that the art or record fails to provide any teaching or suggestion of press inserting profiled pieces into fastening holes in a screen plate, as recited in the instant claims. Moreover, notwithstanding any teaching of MASSA related to profiled pieces, Applicants submit that the art of record fails to provide the necessary motivation or rationale to combine the teachings of GERO '986 and MASSA in any manner that would render unpatentable the instant invention.

Accordingly, Applicants submit that the instant rejection is improper and should be withdrawn. Further, Applicants submit that claims 7 and 8 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. In particular, Applicant submits

that no proper modification of GERO '212 or GERO '986 teaches or suggests, *inter alia*, the profiled pieces are made of a sintered metal alloy, as recited in claim 7; and a tungsten carbide powder is sintered to produce the profiled piece, as recited in claim 8.

Accordingly, Applicants request that the Examiner reconsider and withdraw the rejection of claims 7 and 8 under 35 U.S.C. §103(a) and indicate that these claims are allowable.

***Newly Submitted Claims are Allowable***

Applicants submit that newly presented claims 45 and 46 are allowable over the art of record at least for the reasons set forth above. In particular, Applicants submit that none of the applied art, whether considered singly or in any proper combination thereof, anticipates or renders obvious a process for manufacturing screens suitable for use in wet screening fibrous paper suspensions, in which the screens include at least one screen plate having a number of sorting apertures, in which the process includes, *inter alia*, providing a number of fastening openings in the at least one screen plate; and *forming a ridge on the at least one screen plate by inserting a plurality of profiled pieces into the fastening openings* in such a manner that at least a portion of the profiled pieces project above a screen surface, as recited in claim 45, or in which the process includes, *inter alia*, providing a number of fastening holes and a number of sorting apertures in the at least one screen plate, and *inserting profiled pieces into the fastening holes, which are larger in diameter than the sorting apertures*, as recited in claim 46.

Accordingly, Applicants request that the Examiner consider new claims 45 and 46 and

indicate that these claims are allowable.

***Request for Rejoinder of Non-Elected Claims***

Applicants request that, as the process claims for making the apparatus have been shown to be allowable, that apparatus claims 23 – 44 be rejoined and examined on their merits. In this regard, Applicants note that all of the features of the apparatus recited in the process are recited in the apparatus claims, such that rejoined is appropriate.

Accordingly, Applicants request that the Examiner indicate that allowability of claims 23 – 44 in the next official communication.

***Application is Allowable***

Thus, Applicants respectfully submit that each and every pending claim of the present invention meets the requirements for patentability under 35 U.S.C. §§ 102 and 103, and respectfully request the Examiner to indicate allowance of each and every pending claim of the present invention.

***Authorization to Charge Deposit Account***

The undersigned authorizes the charging of any necessary fees, including any extensions of time fees required to place the application in condition for allowance by Examiner's Amendment, to Deposit Account No. 19 - 0089 in order to maintain pendency of this application.

**CONCLUSION**

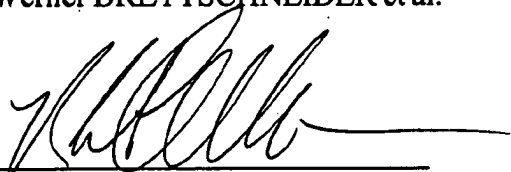
In view of the foregoing, it is submitted that none of the references of record, either taken alone or in any proper combination thereof, anticipate or render obvious the Applicants'

invention, as recited in each of claims 1 - 46. The claims have been amended to eliminate any arguable basis for rejection under 35 U.S.C. § 112. In addition, the applied references of record have been discussed and distinguished, while significant claimed features of the present invention have been pointed out.

Further, any amendments to the claims which have been made in this response and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Accordingly, reconsideration of the outstanding Office Action and allowance of the present application and all the claims therein are respectfully requested and now believed to be appropriate.

Respectfully submitted  
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